

SUSTAINING THE PUBLIC HEALTH LABORATORY SYSTEM: THE LABORATORY EFFICIENCIES INITIATIVE

THE DANGER: FEWER PUBLIC HEALTH LABS CAN DIAGNOSE THREATS RAPIDLY

The Nation's public health laboratories perform critically needed services to protect the public's health and support patient treatment. But they are not sustainable as they currently operate:

- Most states have cut laboratory budgets deeply to balance their own books.
- Many public health labs have lost ~25% of their staff.
- Many labs have eliminated or reduced testing, e.g., for measles, pertussis, and Legionnaire's disease.
- Their ability to maintain services is under severe stress and might impair outbreak investigation, emergency response, surveillance, and public health prevention programs.

GOAL: ACHIEVE A SUSTAINABLE NATIONAL PUBLIC HEALTH LABORATORY SYSTEM THROUGH GREATER EFFICIENCY

CDC and the Association of Public Health Laboratories (APHL) developed the Laboratory Efficiencies Initiative (LEI) to help public health labs across the country achieve long-term sustainability by adopting high-efficiency management practices through:

- Multi-state sharing of laboratory services and within-state reorganization of test services,
- Procurement discounts through joint purchasing,
- Generation of new revenue streams,
- Standardization of testing methods and platforms,
- "Lean" assessments to identify operating system efficiencies and improve workflow management,
- Informatics strategies such as implementing interoperability across information systems, and
- Workforce development.

LEI STRATEGY

States will:

- Use anticipated FY 2013 awards to address informatics, workflow analysis, and development of billing systems and multi-state consortia.
- Use procurement cost-savings and new revenue streams to help build and maintain testing capacity.

CDC and APHL will:

- Coordinate LEI planning and implementation.
- Develop practical guides to reorganizing testing services, joint purchasing, workforce development, and standardization of test platforms.
- Develop a self-assessment tool to evaluate informatics capabilities and identify action steps to address identified gaps.
- Harmonize and expand access to data on public health laboratories' testing services to monitor capabilities and enable greater cross-state sharing of testing services.
- Identify metrics for the return on investment (ROI) in public health laboratory sustainability.

CDC will:

- Streamline its programs that provide support to public health laboratories to reduce their administrative burden and standardize testing platforms.

SELECTED EXAMPLES OF EXISTING APPROACHES TO IMPROVING EFFICIENCY

Shared Laboratory Testing Services/Regionalization

- Newborn Screening Tests
 - Testing for five New England states is performed by one Univ. of Massachusetts laboratory.
 - The Oregon state public health laboratory performs all tests for five other states.
- Tuberculosis (TB)
 - All TB genotyping nationally is conducted in the Michigan and California public health laboratories; CDC's Division of TB Elimination pays for this service.
- Cross-cutting
 - The public health laboratories of Montana, North Dakota, South Dakota, and Wyoming have formed the Northern Plains Consortium to share a group of selected testing services.

Within-State Reorganization of Services

- The New Hampshire state environmental laboratory recently was merged into the state public health laboratory for a reported general fund savings of \$200,000-250,000/year.
- In 2010, the Arizona agriculture laboratory was merged into the state public health laboratory, allowing the agriculture department to sell the building it had occupied.

Standardization of Testing Methods

- The Laboratory Response Network is considered a model for standardization of testing protocols and reagents that is adaptable to new challenges, e.g., SARS and H1N1.

Procurement Cost Savings

- CDC's Influenza Division supplies reagents to state health departments at substantial savings.
- All states and localities are eligible to purchase laboratory supplies and equipment at discounted prices through the Western States Contracting Alliance, created in late 2010.

New Revenue Streams

- CDC funded several state childhood immunization programs to develop capacity to bill health insurance. Arizona generated \$2.23 for every dollar invested. This model may be generalizable to laboratories.

Workforce Development

- CDC and partners have developed a comprehensive set of competencies that have bolstered the effectiveness of programs such as the Epidemic Intelligence Service (EIS).

Managing Workflow

- APHL provide innovation grants to six states, many of which conducted Lean management assessments that identified improved workflow practices and cost savings.